



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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APR 11 2012

Ref: 8EPR-N

Mike Stiewig, Field Office Manager
Bureau of Land Management
Vernal Field Office
170 South 500 East
Vernal, Utah 84078

Re: Gasco Energy Inc. Uinta Basin Natural Gas
Development Project Final Environmental
Impact Statement; CEQ # 20120065

Dear Mr. Stiewig:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Final Environmental Impact Statement (EIS) for the Gasco Energy Inc. Uinta Basin Natural Gas Development Project (Gasco Project), prepared by the Bureau of Land Management (BLM). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

Project Background and General Comments

The Gasco Project Final EIS analyzes environmental impacts associated with a proposal by Gasco Energy Inc. (Operator) to develop oil and natural gas resources on the company's existing leases within the Monument Butte – Red Wash and West Tavaputs fields in the Uinta Basin, Utah. The Preferred Alternative selected by the BLM, Alternative F, allows development of 1,298 new gas production wells from 575 well pads as well as infrastructure and ancillary facilities to support natural gas production. Alternative F is a new alternative developed based on comments received on the Draft EIS. It incorporates portions of the original alternatives to reduce impacts compared to Alternative A, which was identified as the Preferred Alternative in the Draft EIS. The preferred Alternative F includes 193 fewer wells and almost 4,000 acres less disturbed land than the Preferred Alternative in the Draft EIS.

The EPA appreciated the opportunity to work closely with the BLM over the past year to address the substantial concerns that we raised based on our review of the Draft EIS, which included potential impacts to air quality and water resources and the need to generally reduce the environmental impacts of the Preferred Alternative. We believe the Final EIS represents a considerable improvement in the adequacy of the analysis of the project's potential impacts. While impacts certainly remain, the new

Preferred Alternative substantially reduces potential impacts to air quality and water resources. After reviewing the Final EIS, we present the remaining comments concerning development of the Preferred Alternative, air quality, protection of water resources, and environmental justice.

Development of the Preferred Alternative

The EPA expects the new Preferred Alternative F to have fewer overall environmental impacts than those associated with Alternative A, which was identified as the Preferred Alternative in the Draft EIS. We are specifically encouraged by the BLM's efforts to: 1) reduce reliance on evaporation ponds through enhanced water management techniques; 2) reduce surface disturbance through the increased use of directional drilling; and, 3) reduce potential air quality impacts through the use of additional air quality mitigation measures.

1. Evaporation Ponds: During review of the Draft EIS, the EPA expressed serious concern over the extensive acreage for and use of evaporation ponds for disposal of produced water, including potential air quality impacts from volatile organic compound (VOC) emissions or the possibility of leaks impacting water quality. We support the BLM's decision to reduce the potential impacts from evaporation ponds by:
 - Limiting the amount of water that can be disposed of in the water evaporation facility;
 - Encouraging the Operator to pursue alternative water disposal methods including treatment for reuse in waterflood operations or subsurface injection;
 - Requiring treatment technology to control VOC emissions, including hazardous air pollutants (HAPS), using dissolved air flotation or an equally effective method resulting in an air pollution control efficiency of at least 60%; and
 - Including important water quality safeguards for potential leaks, such as lining and leak detection for the evaporation ponds and development of a Long-Term Monitoring Plan for water resources.
2. Well Locations: As the EPA recommended in our Draft EIS comments, the number of well pads in Alternative F has been reduced by over 60% compared to Alternative A through the use of increased directional drilling, thereby greatly reducing surface disturbance. Alternative F also includes important additional restrictions for environmental protection including no well pads located within 100-year floodplains and no surface disturbance permitted in riparian or wetland areas. The benefits of a more than 50% reduction in total surface disturbance as well as locating wells and facilities outside of these sensitive water resource areas include:
 - Anticipated reductions in particulate matter (PM) concentrations and visibility impacts;
 - Reduced erosion and sediment runoff impacts to surface water resources, including impaired surface waters; and
 - Generally lower dust transport within and outside of the project area, with benefits to a wide range of environmental resources.

EPA encourages any future efforts to further reduce surface disturbance and to do so in areas where any sensitive resources exist. EPA also wishes to stress the importance of ensuring that the Operator be required to fully adhere to the applicant committed best management practices (BMPs) and BLM mitigation requirements and that the BLM ensure the anticipated impacts remain mitigated through inspections and enforcement. We understand and support that, as part of the Preferred Alternative, these important environmental protection measures will be documented in the Record of Decision (ROD), developed into operating conditions during the site-specific permit (e.g. Application for Permit to Drill) approval process and subsequently enforced.

Air Quality

The Final EIS provides improved disclosure of potential air quality impacts and enhanced mitigation to reduce potential adverse impacts. Notably, the BLM has performed additional analysis of emissions of hazardous air pollutants associated with the evaporation ponds and addressed impacts to the 1-hour standard for nitrogen dioxide. We commend the BLM and the Operator for the many additional applicant committed BMPs to reduce air quality impacts. These measures include:

- Green completions
- Phase in of Tier IV diesel drill rig engines, and
- Implementation of an inspection and maintenance program to reduce fugitive VOC emissions.

The Final EIS also includes an adaptive management strategy to further reduce ozone precursor emissions if necessary in the future. This is particularly important given data showing high winter-time ozone concentrations in the Uinta Basin, and the lack of modeling information to predict with confidence the level of control required to prevent adverse regional ozone impacts.

Given the need for improved ozone modeling information, the EPA supports the BLM's commitment as part of the adaptive management strategy to remodel project-specific ozone impacts within two years of signing the ROD. The EPA understands that the revised ozone modeling will incorporate and utilize substantial improvements including:

- Updated emissions inventory information, including the evaporation pond emissions;
- Additional ambient air quality monitoring data;
- Updated local meteorological data; and
- An improved modeling protocol vetted through Utah BLM's air quality technical workgroup.

This future modeling study is one of several triggers described in the adaptive management strategy that may determine a need for additional mitigation. We understand that the applicant committed BMPs and the adaptive management strategy for ozone impacts will be documented in the ROD, and we support the BLM's commitment to reevaluate the measures necessary to prevent adverse impacts to ozone in the Uinta Basin as additional information becomes available in the future.

Protection of Water Resources

A thorough characterization of resources in the affected environment of a proposed project forms the foundation of an analysis of potential environmental impacts. The Final EIS for the Gasco Project contains an improved characterization of groundwater resources, including added discussion of local aquifers, identifying private wells located within the project area and providing baseline water quality to the extent available. The Final EIS also includes extensive additional information regarding impaired surface waters. Together, these additions to the Final EIS provide a better understanding of the character of water resources the potential impacts to water resources in the Gasco project area. In addition to the modifications to the Preferred Alternative described above, the Final EIS includes several additional BMPs for protection of water resources, such as:

- Use of a closed-loop drilling system in certain sensitive areas;
- Additional erosion and sedimentation controls for surface water protection, including measures from the Pariette Draw Total Maximum Daily Load (TMDL); and
- A requirement for the operator to conduct cement bond log surveys to verify cement adequacy and protect groundwater quality.

At a minimum, we urge the BLM to incorporate these measures (and others listed in section 4.15.2 of the Final EIS) as requirements for the selected alternative in the ROD.

Another key addition to the Final EIS is the Long-Term Monitoring Plan for Water Resources, which greatly improves the BLM's ability to detect and mitigate unanticipated impacts, thereby reducing potential impacts to groundwater and surface water. We strongly support the BLM for development of this plan, and offer our continued assistance for finalizing the monitoring network details.

Environmental Justice

Given the proximity of low-income and minority communities to the proposed Gasco Project area, as well as the potential for serious air quality and water quality concerns associated with oil and gas development projects, environmental justice (EJ) issues are an important consideration for this NEPA Analysis. The Final EIS addresses this objective through the detailed discussion of potential disproportionate adverse impacts added to the Final EIS, including:

- Improved identification of potential EJ communities;
- The analysis of whether project impacts are likely to affect resources of concern beyond the project area into surrounding communities; and
- The resource-specific discussions provided for air quality, climate, cultural resources, land use and transportation, livestock, recreation, and socioeconomics, which the BLM concluded could have potential adverse impacts outside of the project area, including to EJ communities.

We are pleased to see that the BLM's enhanced analysis did not identify any adverse impacts that are likely to disproportionately impact EJ communities.

Thank you for the opportunity to review this Final EIS. We commend the BLM on the improved analysis and disclosure and the addition of vital environmental safeguards to the Gasco Project. If you have any questions or would like to discuss our comments, please contact me at (303) 312-6925. You may also contact Molly Vaughan, lead reviewer for this project, at (303) 312-6577 or by email at vaughan.molly@epa.gov.

Sincerely,



Suzanne J. Bohan
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation



